Tasking Memorandum No. 99-04

Memorandum For Cdrs DCMDE, DCMDW, DCMC Boeing Helicopters, DCMC Boeing Seattle, DCMC Boeing St. Louis, DCMC Chicago (Rockford), DCMC Northrop Grumman Hawthorne, DCMC Pratt & Whitney, DCMC Raytheon, DCMC Raytheon Tucson, DCMC Syracuse, DCMC Twin Cities

Subject: Computer Aided Parametric Estimating Software Project (TASKING)

Date: October 13, 1998

Suspense Date: December 15, 1998 and monthly thereafter until project completion.

Target Audience: Commanders, and all DCMC personnel involved in pricing contracts (e.g., Price Analysts, Administrative Contracting Officers, Contract Administrators, Industrial Specialists, Engineers and Quality Assurance Representatives)

Requirement(s):

- During FY 1999, the addressee Contract Administration Offices are to use the PRICE-H/SEER-H cost estimating software to determine its ability to yield realistic estimates for military and commercial hardware items (especially spare parts for major weapon systems).
  - CAOs are to send at least two individuals to the vendor training identified in the attached project plan. One of the two participants must be a person with a technical background, e.g., a Quality Assurance Representative, Industrial Specialist, or an Engineer, who has access to, or knowledge of the items. (This will facilitate use of the software since the software essentially requires the user to describe the item to it, e.g., weight, height, material, complexity, etc.)
  - Starting December 1 5th and each month thereafter, CAOs are to provide a monthly status report directly to HQ DCMC, Contractor Capability and Proposal Analysis Team (DCMC-OD).
    - Reports may be E-mailed to nelson cahill@hq.dla.mil or faxed to (703) 767-2379.
    - These reports will be evaluated to come up with interim results as well as to determine the extent of software usage.
    - A format for the monthly report is attached.

CAO Commander: The CAO Commander's commitment and continuous involvement in this project is essential to ensure its success. This will be the topic of a HQ Special Management Review during FY 1999.

- Parametric Cost Estimating Software could be the primary tool we'll use in the future to develop Independent Government Estimates for price analysis as we move to Price Based Contracting. Thus, it is imperative that CAOs use the software.
- Use of the cost estimating software should be charged to PLAS code 041.

Point of Contact for Further Information:

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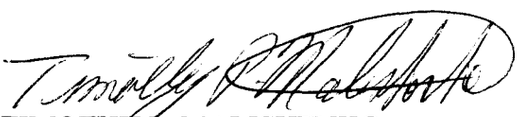

TIMOTHY P. MALISHENKO
Major General, USAF
Commander

Attachments

1 . Project Plan
2. Monthly Report Format

Computer Aided Parametric Estimating (CAPE) Software Project Plan
(October 1, 1998 – September 30, 1999)

Purpose: To assess and compare the ability of the two leading commercial cost estimating software packages (PRICE-H and SEER-H) to yield realistic estimates for military and commercial hardware items (especially spare parts for major weapon systems) that DCMC prices for the Military Services.

Background: The underlying premise is that with this software, independent government estimates (IGEs) can be developed quickly with little or no contractor-furnished information. These IGEs can then be used for price analysis and negotiation.

Besides facilitating compliance with Government pricing policy, specifically the FAR 15.402 pricing information "order of preference," this cost estimating approach could also help DCMC deal with some major current pricing issues:

- Spare Parts Pricing

Contractor overpricing of spare parts has been a recurring issue since the early 1980s. Despite DoD-wide emphasis on preventing overpricing, instances still occasionally occur where contractors propose, and Government buyers accept, excessive prices for spare parts orders. Often, when investigated, the reason cited by buyers involved is that a "risk-benefit" trade-off decision was made between spending more time working on large dollar value contract actions or smaller, often routine spare parts orders. The buyers did not have time to do justice to both efforts, so they dedicated themselves to the larger jobs. As workforce reductions continue, these trade-off decisions will become more prevalent, and the risk of being overcharged for spare parts will increase. A tool that would allow us to quickly generate reliable IGEs would obviously be of immense benefit in this area.

- Commercial item Acquisitions

The federal Acquisition Streamlining Act affirmed the federal Government's preference for commercial and nondevelopmental items. It also expanded the definition of a commercial item allowing contractors to designate more and more of their products as "commercial," and, together with the Clinger-Cohen Act, limited the type of pricing information the government can obtain for these items. In the vast majority of cases, price analysis is really the only method available for determining whether the proposed prices are reasonable. A common problem is finding a comparable historic, competitive, or estimated price (such as a valid IGE) to use for price analysis.

- Price Based Contracting

There is growing sentiment by Government decision makers that acquisitions should be price based, i.e., the Government should not, at any time during the acquisition process, intrude into contractors' internal cost information. The ramifications of such a policy would obviously be substantial. The capability to develop Independent Government Estimates would give us a way to ensure price reasonableness in such an environment

For six months ending on June 30, 1998, a preliminary evaluation of the PRICE-H and SEER-H software was conducted by seven DCMC offices, where cost estimates were developed for 37 items. This evaluation was not sufficient enough to make a determination as to whether the software can effectively price spares, and if one brand (PRICE-H or SEER-H) is better than the other. During the course of this project, we expect each selected CAO to fully utilize the software, as user input will be invaluable in helping us determine which cost estimating software will be the best for us to utilize in the future. We foresee the use of Parametric Cost Estimating Software as the primary tool we will be using in the future to develop Independent Government Estimates as we move to Price Based Contracting. Thus, it is imperative that CAOs make full use and a complete evaluation of the software so we can be assured we will be making the correct decision should we procure cost estimating software for use at CAOs throughout DCMC.

Project participants: The following ten contract administration offices (CAOs) have been selected to participate in the use of the software (5 using PRICE-H, and the other 5 using SEER-H) from completion of vendor training in November 1998 through September 30, 1999. The CAOs selected to participate will have large numbers of ACO negotiations for spare parts.

PRICE-H	SEER-H
DCMC Boeing Helicopters	DCMC Boeing Seattle
DCMC Chicago Rockford	DCMC Boeing St. Louis
DCMC Pratt & Whitney East Hartford	DCMC Northrop Grumman Hawthorne
DCMC Raytheon	DCMC Raytheon Tucson
DCMC Syracuse	DCMC Twin Cities

In the PRICE-H/SEER-H test which was completed at the end of June, the use of the software was primarily limited to one individual from each CAO attending the training and conducting the test. During the conduct of this project, we want the development of cost estimates to be a team effort. At least two individuals from each CAO should attend the training and participate in the test. One of the two participants must be a person with a technical background, for example, a Quality Assurance Specialist, Industrial Specialist, or an Engineer.

The software uses complex multivariate regression models to estimate the cost of the item. Input to the models requires knowledge of the physical and functional characteristics of the item and the manufacturing operations involved in producing it. The models can be calibrated to reflect the manufacturer's particular capabilities, skills, efficiencies, and cost structure.

Vendor Training: Each CAO will send two employees to the vendor workshops. The sites are as follows and the tentative dates will be confirmed at a later time.

PRICE-H (5 days)	Mt. Laurel, NJ	November 16-20, 1998
SEER-H (4 days)	El Segundo, CA	November 17-20, 1998

HQ DCMC will pay the cost of the training. The CAOs will be responsible for the travel and lodging costs.

We anticipate CAOs testing the SEER-H software may send more than two employees (if space is available) to the training (our contract calls for up to sixteen students). CAOs wishing to send more than two students to the PRICE-H training will be responsible for the extra tuition costs (approximately $1,680 per student) as our contract only provides for ten training slots. District West should send one person to the SEER-H training course, and District East should send one person to the PRICE-H training. District East will need to fund the extra tuition cost for the PRICE-H training. The District Point of Contact should consolidate the list of students and forward it to HQ DCMC-OD by November 4, 1998.

Project Period: The PRICE-H/SEER-H software will be distributed by the company at the training course. Use of the cost estimating software will begin immediately upon completion of the training course and will run through completion of the project on September 30, 1999.

Project Plan: The software will be used to develop IGEs for price analysis in support of ACO negotiations. The idea is to compare the estimate developed with the software with the proposed, prenegotiation, and final negotiated amount to determine the accuracy of the price developed with the software. Ideally, these amounts will also be compared with the actual costs for the item; while this may not be possible in some cases due to limitations of contractors' cost accounting systems or reluctance on the part of contractors, attempts will be made to collect this information.

We need to use the software as much as possible. It will be used to develop a prenegotiation objective for every single spare part purchased by the CAO. If this becomes impractical (for example, because of the sheer volume of the orders) then the CAO will notify the HQ project sponsor to work out an alternative sampling plan. The software may also be used as a form of pricing support once the CAO becomes comfortable with the estimates produced by the software.

Monthly Results Reporting: Status reports are due to HQ DCMC-OD by the 15th of each month. The first report is due on December 15th, and by the 15th of each month thereafter. Each monthly report will be sent by E-mail to **nelson_cahill@hq.dla.mil** and to the

District Point of Contact, using a Microsoft Excel spreadsheet (attached) in the following format:

Item Nomen-clature	Contractor Proposed Price	Estimated Software Price	Prenegoti-ation Position	Basis for Prenegoti-ation Position *	Amount Negotiated	Actual Cost (if available) plus typical profit **
Circuit Card	26565	16000	16000	Software	23808	14786
Door Assembly	24000	22000	23500	Prior Prices	23500	22750

* Basis for prenegotiation objective, e.g., prior price, actual costs, bottoms-up cost estimate, if not the software-generated estimate.

* * To make data comparable.

In October 1999, we will be asking for a final report that will provide feedback on the following aspects of the software:

- Is it quicker than other methods of developing prenegotiation objectives?
- Could it be used as the sole basis for spares pricing or is its value mainly as a check against gross overpricing? Were there any incidents of gross overpricing identified using the software that would probably have otherwise gone undetected?
- Is the software user friendly? Could we use a 'train-the-trainer" approach or do we definitely need vendor training for every user? Is training beyond that provided by the vendor required?

HQ VISITS: During January/February 1999, HQ/DCMD Project Sponsors will visit each participating CAO to determine the progress being made in using the software.

Decision to Proceed after Project Plan: The software needs to pay for itself. The costs associated with fielding this software are pretty easy to compute. Cost savings/avoidances are likewise quantifiable (see "Monthly Results Reporting" above). Other benefits obtained from using the software (e.g., avoiding the adverse publicity associated with overpriced purchases, reduced negotiation cycle time) will also be considered qualitatively in the cost-benefit analysis.

HQ Project Sponsor: HQ DCMC, Contractor Capability and Proposal Analysis, Nelson Cahill, (703) 767-3370, E-mail: nelson_cahill@hq.dla.mil

District Sponsors:
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DCMD West: Mr. Gerald Choy, (310) 335-3540, E-mail gchoy@link.dcmdw.dla.mil

Attachment 2

CAPE PROJECT RESULTS OCTOBER 1998 - SEPTEMBER 30, 1999

Item Nomenclature	Contractor Proposed Price	Estimated Software Price	Prenegotiation Position	Basis for Prenegotiation Position*	Amount Negotiated	Actual Cost (if avaialable) plus typical profit**
Sample One	$26,565	$16,000	$16,000	Software	$23,808	$14,786
Sample Two	$24,000	$22,000	$23,500	Prior Prices	$23,500	$22,750
Totals	$50,565	$38,000	$39,500		$47,308	$37,536

*** Basis for prenegotiation objective, e-g-, prior prices, actual costs, bottoms-up cost estimate, if not the software-generated estimate.**

****To make data comparable.**